

CLAIMS

What is claimed is:

1. A vacuum connector comprising:
 - an inlet;
 - 5 an outlet;
 - a separation chamber in communication with the inlet;
 - an air pathway in communication with the separation chamber and the outlet; and
 - a fluid pathway separate from the air pathway, and in communication
 - 10 with the separation chamber and the outlet.
2. The connector of claim 1, and further comprising a flow indicator coupled to the fluid pathway.
- 15 3. The connector of claim 1, and further comprising a bioaerosol inlet separate from the inlet, and in communication with the outlet.
4. The connector of claim 1, and further comprising a volumetric indicator coupled to the fluid pathway.
- 20 5. The connector of claim 1, and further comprising a decontamination unit in cooperation with the outlet.

6. The connector of claim 1, and further comprising a collection chamber in communication with the separation chamber.

7. The connector of claim 1, and further comprising a vacuum regulator in
5 cooperation with the inlet.

8. The connector of claim 1, and further comprising a flowmeter coupled to the fluid pathway, and a microprocessor in communication with the flowmeter and capable of calculating flow rates and total volume
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9. The connector of claim 1, and further comprising an end effector in communication with the inlet.

10. The connector of claim 1, and further comprising a vacuum source in
15 communication with the outlet.

11. The connector of claim 1, wherein the separation chamber includes a baffle in cooperation with the inlet for optimizing the separation of liquid and gaseous material.
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12. The connector of claim 1, wherein the separation chamber includes a filter in cooperation with the inlet for optimizing the separation of solid materials.

13. A vacuum system comprising:
- a vacuum source;
 - a connector in communication with the vacuum source and comprising of an inlet, an outlet, a separation chamber in communication with the inlet, an air
 - 5 pathway in communication with the separation chamber and the outlet, and a fluid pathway separate from the air pathway and in communication with the separation chamber and the outlet; and
 - an end effector in communication with the inlet.
- 10 14. The system of claim 13, and further comprising a flowmeter coupled to the fluid pathway, and a microprocessor in communication with the flowmeter and capable of calculating flow rates and total volume.
- 15 15. The system of claim 14, and further comprising an input device in communication with the microprocessor.
16. The system of claim 15, wherein the input device includes a key pad.
17. The system of claim 13, and further comprising a decontamination unit in
- 20 cooperation with the outlet, the contamination unit including a collapsible container containing a pre-measured amount of decontaminant.

18. The system of claim 13, wherein the vacuum source includes a centrifugal separator.

19. A method of calculating liquid information evacuated from a source

5 containing liquid, solids, or gas, the method comprising:

providing a connector comprising of an inlet, an outlet, a separation chamber in communication with the inlet, an air pathway in communication with the separation chamber and the outlet, and a fluid pathway separate from the air pathway and in communication with the separation chamber and the outlet;

10 coupling an end effector in communication with the source to the inlet;

coupling a flow meter to the fluid pathway;

applying a vacuum pressure to the outlet; and

calculating liquid information from an output provided by the flow meter.

15 20. The method of claim 19, wherein two types of liquid information calculated is a flow rate and a total liquid volume.